

## LABORATORY REPORT

Prepared For: Brown & Caldwell  
201 E. Washington St., Ste. 500  
Phoenix, AZ 85004  
Attention: Barbara Sylvester

Project: Florence Copper 140753

Sampled: 09/27/11  
Received: 09/27/11  
Issued: 10/06/11 10:49

NELAP #01109CA Arizona DHS#AZ0728

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## CASE NARRATIVE

### LABORATORY ID

PUI1645-01  
PUI1645-02  
PUI1645-03

### CLIENT ID

M26-0  
M17-GL  
M24-0

### MATRIX

Water  
Water  
Water

**SAMPLE RECEIPT:** Samples were received intact, at 2°C, on ice and with chain of custody documentation.

**HOLDING TIMES:** All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

**PRESERVATION:** Samples requiring preservation were verified prior to sample analysis.

**QA/QC CRITERIA:** All analyses met method criteria, except as noted in the report with data qualifiers.  
N1-Sample filtration for dissolved analytes was performed by laboratory. The regulatory requirement is filtration within fifteen minutes of sampling.  
N1a-Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).

**COMMENTS:** Results that fall between the MDL and RL are 'E4' flagged.

**SUBCONTRACTED:** No analyses were subcontracted to an outside laboratory.

Reviewed By:



TestAmerica Phoenix

Tina Paulauskas  
Project Manager

Brown & Caldwell  
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## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: PUI1645-01 (M26-0 - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
Magnesium	EPA 200.7	11I1049	0.20	2.0	ND	1	09/29/11	09/29/11	E8
<b>Sample ID: PUI1645-02 (M17-GL - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
Magnesium	EPA 200.7	11I1049	0.20	2.0	<b>4.9</b>	1	09/29/11	09/29/11	
<b>Sample ID: PUI1645-03 (M24-0 - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
Magnesium	EPA 200.7	11I1049	0.20	2.0	<b>14</b>	1	09/29/11	09/29/11	

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## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: PUI1645-01 (M26-0 - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0973	N/A	0.40	<b>1.4</b>	1	09/27/11	09/28/11	
Sulfate	EPA 300.0	11I0973	N/A	2.00	<b>56.4</b>	1	09/27/11	09/28/11	
Total Dissolved Solids	SM 2540C	11J0003	N/A	20	<b>290</b>	1	10/01/11	10/01/11	
<b>Sample ID: PUI1645-02 (M17-GL - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0973	N/A	0.40	<b>0.63</b>	1	09/27/11	09/28/11	
Sulfate	EPA 300.0	11I0973	N/A	2.00	<b>94.4</b>	1	09/27/11	09/28/11	
Total Dissolved Solids	SM 2540C	11J0003	N/A	20	<b>410</b>	1	10/01/11	10/01/11	
<b>Sample ID: PUI1645-03 (M24-0 - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0973	N/A	0.40	<b>1.2</b>	1	09/27/11	09/28/11	
Sulfate	EPA 300.0	11I0973	N/A	40.0	<b>1100</b>	20	09/27/11	09/28/11	
Total Dissolved Solids	SM 2540C	11J0003	N/A	20	<b>1700</b>	1	10/01/11	10/01/11	

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11I1049 Extracted: 09/29/11</b>										
<b>Blank Analyzed: 09/29/2011 (11I1049-BLK1)</b>										
Magnesium	ND	2.0	0.20	mg/l						
<b>Blank Analyzed: 09/29/2011 (11I1049-BLK2)</b>										
Magnesium	ND	2.0	0.20	mg/l						
<b>Blank Analyzed: 09/29/2011 (11I1049-BLK3)</b>										
Magnesium	ND	2.0	0.20	mg/l						
<b>LCS Analyzed: 09/29/2011 (11I1049-BS1)</b>										
Magnesium	21.7	2.0	0.20	mg/l	21.0		103	85-115		
<b>LCS Dup Analyzed: 09/29/2011 (11I1049-BSD1)</b>										
Magnesium	21.4	2.0	0.20	mg/l	21.0		102	85-115	2	20
<b>Matrix Spike Analyzed: 09/29/2011 (11I1049-MS1)</b>										
					<b>Source: PUI1339-04</b>					
Magnesium	23.3	2.0	0.20	mg/l	21.0	1.46	104	70-130		
<b>Matrix Spike Analyzed: 09/29/2011 (11I1049-MS2)</b>										
					<b>Source: PUI1451-01</b>					
Magnesium	43.1	2.0	0.20	mg/l	21.0	21.8	102	70-130		
<b>Matrix Spike Dup Analyzed: 09/29/2011 (11I1049-MSD1)</b>										
					<b>Source: PUI1339-04</b>					
Magnesium	22.9	2.0	0.20	mg/l	21.0	1.46	102	70-130	2	20
<b>Matrix Spike Dup Analyzed: 09/29/2011 (11I1049-MSD2)</b>										
					<b>Source: PUI1451-01</b>					
Magnesium	43.1	2.0	0.20	mg/l	21.0	21.8	101	70-130	0.06	20

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 11I0973 Extracted: 09/27/11</u></b>											
<b>Blank Analyzed: 09/28/2011 (11I0973-BLK1)</b>											
Fluoride	ND	0.40	N/A	mg/l							
Sulfate	ND	2.00	N/A	mg/l							
<b>LCS Analyzed: 09/28/2011 (11I0973-BS1)</b>											
Fluoride	4.14	0.40	N/A	mg/l	4.00		103	90-110			
Sulfate	20.8	2.00	N/A	mg/l	20.0		104	90-110			N/a
<b>LCS Dup Analyzed: 09/28/2011 (11I0973-BSD1)</b>											
Fluoride	4.18	0.40	N/A	mg/l	4.00		104	90-110	1	20	
Sulfate	20.7	2.00	N/A	mg/l	20.0		103	90-110	0.4	15	N/a
<b>Matrix Spike Analyzed: 09/28/2011 (11I0973-MS1)</b>						<b>Source: PUI1635-03</b>					
Fluoride	4.86	0.40	N/A	mg/l	4.00	0.701	104	80-120			
<b>Matrix Spike Dup Analyzed: 09/28/2011 (11I0973-MSD1)</b>						<b>Source: PUI1635-03</b>					
Fluoride	4.88	0.40	N/A	mg/l	4.00	0.701	104	80-120	0.4	20	
<b><u>Batch: 11J0003 Extracted: 10/01/11</u></b>											
<b>Blank Analyzed: 10/01/2011 (11J0003-BLK1)</b>											
Total Dissolved Solids	ND	20	N/A	mg/l							
<b>LCS Analyzed: 10/01/2011 (11J0003-BS1)</b>											
Total Dissolved Solids	1000	20	N/A	mg/l	1000		100	80-115			
<b>LCS Dup Analyzed: 10/01/2011 (11J0003-BSD1)</b>											
Total Dissolved Solids	1000	20	N/A	mg/l	1000		100	80-115	0	10	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 11J0003 Extracted: 10/01/11</u></b>										
<b>Duplicate Analyzed: 10/01/2011 (11J0003-DUP1)</b>					<b>Source: PUI1610-01</b>					
Total Dissolved Solids	1240	20	N/A	mg/l		1230		1	10	
<b>Duplicate Analyzed: 10/01/2011 (11J0003-DUP2)</b>					<b>Source: PUI1761-01</b>					
Total Dissolved Solids	1240	20	N/A	mg/l		1240		0.2	10	

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## DATA QUALIFIERS AND DEFINITIONS

**E8** Analyte reported to the MDL per project specification. Target analyte was not detected in the sample.  
**N1** See case narrative.  
**ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.  
**RPD** Relative Percent Difference

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## Certification Summary

### TestAmerica Phoenix

Method	Matrix	Nelac	Arizona
EPA 200.7	Water		X
EPA 300.0	Water		X
SM 2540C	Water		X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

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**Note:** By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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